

pressure I saw what seemed to me something like two or three lateral barblets appearing on one side of a barble.

When the ova arrived many of them were covered by a forest of minute fungi. I submitted these to Mr. Berkeley, who informs me that "the matter on the fish-ova is a *Saprolegnia*; there being only one kind of fruit, and that scarcely perfect, I cannot tell the species. The curious point is, that it is accompanied by a mucor, probably a condition of the *Saprolegnia* (or the reverse), with quadrate spores, which I never saw before."

2. Descriptions of thirty-four new Species of Shells from Australia. By GEORGE FRENCH ANGAS, CORR. MEMB. Z.S.L., F.L.S., F.R.G.S., &c.

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(Plate I.)

1. TRITON (CUMIA) SPECIOSA, n. sp. (Plate I. fig. 1.)

Shell ovately fusiform, moderately solid, with from twenty to twenty-two conspicuous, erect, rounded varices; whitish, sometimes with a narrow zone of pale chestnut on the lower portion of the last whorl; whorls  $5\frac{1}{2}$ , encircled throughout with concentric ridges larger and smaller alternately, and decussated between the varices with sharp raised striæ, forming bead-like nodules at the intersection of the ridges; spire pointed; aperture ovate, white within; outer lip arcuate, thickened by a varix; columellar margin covered with a shining white callus; canal short, recurved.

Length 8 lines, breadth 4 lines.

*Hab.* Green Point, Watson's Bay, Port Jackson, at very low spring-tides (*Brazier*).

This elegantly sculptured shell appears to belong to a somewhat aberrant group of *Triton*, to which the subgeneric title of *Cumia* has been given, and of which the *Triton convolutus*, Brod., may be regarded as the type.

2. OLIVELLA EXQUISITA, n. sp. (Plate I. fig. 2.)

Shell ovately turreted, smooth, shining, pale brownish yellow, ornamented with three rows of irregular, rather distant, dark chestnut spots, one at the suture, the others near the centre and lower portion of the last whorl, and joined by fine pale chestnut undulating lines which are carried down to the base of the shell; whorls 5; sutures channelled; apex obtuse; outer lip a little thickened; columella slightly plicate anteriorly.

Length 4 lines, breadth  $1\frac{1}{2}$  line.

*Hab.* Coodgee Bay, New S. Wales, in shell-sand (*Brazier*).

A very handsome little shell, the waved lines on the whorls reminding one of *Voluta undulata*.

## 3. COLUMBELLA (MITRELLA) RICINCTA, n. sp. (Plate I. fig. 3.)

Shell fusiform, smooth, somewhat thin, of a pale brown colour throughout, with two narrow opaque white bands, irregularly articulated with orange-chestnut spots, situated above and below the margin of the sutures, the second band being in the centre of the last whorl, and with very faint longitudinal zigzag markings here and there, more distinct toward the base; whorls 8; sutures impressed; spire acuminate, longer than the aperture; aperture elongately ovate, rather short; outer lip sharp at the edge, thickened externally, and somewhat coarsely denticulated within; inner lip shining, with a few slightly elevated nodules, the edge nearly straight and erect; channel slightly eurved and somewhat produced, transversely striated externally.

Length 5 lines, breadth 2 lines.

*Hab.* Port Jackson, dredged near Watson's Bay.

## 4. COLUMBELLA (MITRELLA) ATTENUATA, n. sp. (Plate I. fig. 4.)

Shell acuminately fusiform, moderately solid, smooth, shining, brown, with a pale band below the sutures; whorls 8, very slightly convex, the last grooved at the base; spire attenuated, blunt at the apex, apical whorls darker; sutures impressed; aperture small, subovate; outer lip simple, arcuate, contracted at the base, variced behind, varix dark brown; columella nearly straight, callus slightly reflexed in front; canal short, a little recurved.

Length 4 lines, breadth 1 line.

*Hab.* Dredged near the "Sow and Pigs," Port Jackson (*Brazier*).

An elegant little species, distinguished by its very elongated form and its simple bands of light and dark brown.

## 5. HYALINA (VOLVARINA) MUSTELINA, n. sp. (Plate I. fig. 5.)

Shell elongately ovate, light brown, with two grey bands bordered above and below with darker brown; spire short, apex obtuse; nucleolar whorls edged with dark brown; base rounded; aperture somewhat narrow; columellar lip a little arcuate below, with four equidistant plaits, the upper one nearly transverse, the others passing obliquely upwards; outer lip thickened, slightly inflexed, flatly variced behind, cream-coloured, the brown bands passing over the varix, finely dentate at the inner edge with about twenty teeth.

Length  $2\frac{1}{2}$  lines, breadth 1 line.

*Hab.* Dredged off the "Sow and Pigs," Port Jackson (*Brazier*).

## 6. MARGINELLA OCHRACEA, n. sp. (Plate I. fig. 6.)

Shell subtriangularly ovate, rather thin, smooth, shining, more or less of a pale straw-colour, and frequently with a faint orange effuse band next to the suture on the last whorl; whorls 4; spire obtusely conical, very blunt at the apex; aperture rather narrow; outer lip variced and thickened in the middle, the varix of a paler colour than

the body-whorl; columella with four plaits, the posterior one a little obliquely descending.

Length  $1\frac{1}{2}$  line, breadth 1 line.

*Hab.* From shell-sand, coast of New South Wales.

7. *SCALA (CIRSOTREMA) MORCHI*, n. sp. (Plate I. fig. 7.)

Shell acuminate, solid, whitish; whorls 9, rounded, decussated with longitudinal ribs and more numerous transverse ridges, the longitudinal ones evanescent at the base; sutures impressed; aperture nearly circular, entire.

Length 5 lines, breadth 1 line.

*Hab.* Dredged near the "Sow and Pigs," Port Jackson (*Brazier*).

8. *MATHILDA ELEGANTULA*, n. sp. (Plate I. fig. 8.)

Shell elongately acuminate, thin, semitransparent, whitish; whorls 14, nearly flat, each ornamented with three rounded transverse ribs, the one below the suture the smallest, the interstices between the ribs finely longitudinally striate; striæ raised and very thin; base of last whorl smooth and flattened; nucleolar whorl sinistral; aperture subquadrate; outer lip thin, acute; columella straight, a little produced in front.

Length  $5\frac{1}{2}$  lines, breadth 1 line.

*Hab.* Dredged in Lane Cove Creek, Port Jackson (*Brazier*).

This exquisitely sculptured shell appears to belong to Semper's genus *Mathilda*, which he separates from *Eglesia* in consequence of the nucleolar whorl being sinistral. It, however, has much in common with the latter genus, the nucleolar whorl of its typical species not having, as far as I know, been yet observed.

9. *AGATHA AUSTRALIS*, n. sp. (Plate I. fig. 9.)

Shell acuminate ovate, rather thin, opaque, whitish; whorls 8, slightly convex, suture a little canaliculated; spire acuminate, nucleus sinistral; aperture narrowly ovate; outer lip simple, thin; columella furnished with a strong spiral plait.

Length 4 lines, breadth  $1\frac{1}{2}$  line.

*Hab.* Port Jackson, N. S. Wales. Dredged near "Sow and Pigs" reef.

10. *ODOSTOMIA SIMPLEX*, n. sp. (Plate I. fig. 10.)

Shell acuminate ovate, rather solid, smooth, whitish; whorls  $7\frac{1}{2}$ , rather flat, a little angulate at the sutures; spire acuminate; aperture subovate; outer lip simple, furnished within with elevated striæ; columella with a single sharp transverse plait.

Length 2 lines, breadth  $\frac{3}{4}$  line.

*Hab.* Port Jackson, N. S. Wales. Dredged off "Sow and Pigs."

11. *SYRNOLA TINCTA*, n. sp. (Plate I. fig. 11.)

Shell subulate, rather solid, smooth, shining, whitish, irregularly banded and marked with brown; whorls  $10\frac{1}{2}$ , nearly flat; sutures

deeply impressed; aperture ovate; outer lip thin; columellar plait rather prominent.

Length 3 lines, breadth  $\frac{1}{2}$  line.

*Hab.* Dredged off "Sow and Pigs," Port Jackson (*Brazier*).

12. *CERITHIOPSIS CLATHRATA*, n. sp. (Plate I. fig. 12.)

Shell elongately acuminate, moderately thin, of a pale yellowish colour; whorls 12, encircled by three nearly equally distant rounded ribs, and decussated all over with close-set longitudinal, somewhat undulating raised striæ; sutures deeply impressed; base of last whorl finely radiately striated; nucleolar whorl sinistral; aperture subquadrate; outer lip thin; columella arcuate, scarcely produced in front.

Length 3 lines, breadth  $\frac{3}{4}$  line.

*Hab.* Dredged near "Sow and Pigs" reef, Port Jackson (*Brazier*).

13. *CERITHIOPSIS CROCEA*, n. sp. (Plate I. fig. 13.)

Shell elongately acuminate, rather thin, orange-coloured throughout; whorls 14, encircled by rounded, close-set ribs, four to a whorl, nearly equal in size; the interstices, which are very narrow, finely longitudinally striated; last whorl flattened and smooth at the base; nucleolar whorl sinistral; aperture subquadrate; outer lip thin; columella tortuous, strongly arched and produced in front.

Length 5 lines, breadth  $1\frac{1}{4}$  line.

*Hab.* Dredged off Camp Cove, Port Jackson (*Brazier*).

A species of a beautiful orange colour, with four ribs on each whorl, and the intercostal spaces very narrow and finely striated.

137 14. *LEIOSTRACA LESBIA*, n. sp. (Plate I. fig. 14.)

Shell aculeate, rather thin, smooth, shining, whitish, obscurely somewhat opaquely banded next below the sutures; whorls 12, nearly flat, suture distinct; spire sharply acuminate; aperture elongately ovate, slightly effuse in front; outer lip acute, simple; columella callous and slightly twisted.

Length 6 lines, breadth 1 line.

*Hab.* Dredged at "Sow and Pigs," Port Jackson.

15. *TEREBRA (NASTULA) BRAZIERI*, n. sp. (Plate I. fig. 15.)

Shell elongately turreted, narrow, acute at the apex, shining, pale straw-colour, irregularly painted with brownish orange longitudinal flames, strongest and most numerous next the suture, and with an interrupted zone of suffused brown spots near the base of the last whorl, above which the painting ceases abruptly, leaving a pale band above the zone; nucleolar whorls tinged with purplish brown; whorls 13, flat, obsolete distantly plicate, rather nodose next the sutures; aperture narrowly ovate; outer lip thin, with the margin slightly sinuous; columella tortuous; canal short, somewhat everted.

Length 1 inch 2 lines, breadth 3 lines.

*Hab.* Brisbane Water, New South Wales (*Brazier*).

16. *RISSOINA CRASSA*, n. sp. (Plate I. fig. 16.)

Shell pyramidally ovate, thick, whitish, strongly distantly longitudinally plicate; whorls 7 to 8, slightly rounded, suture impressed, the last whorl with a rounded ridge at the base, over which the longitudinal plications are continued; aperture subovate, strongly and obliquely sinuate in front; outer lip sharp, thickly variced behind; inner lip thickened, sinuous.

Length  $3\frac{1}{2}$  lines, breadth 1 line.

*Hab.* From the "Bottle and Glass" rocks, under stones, Port Jackson (*Brazier*).

17. *CLATHURELLA HAYESIANA*, n. sp. (Plate I. fig. 17.)

Shell ovately fusiform, rather solid, of a dull chalky-grey colour; whorls 7, angulated at the upper part, closely longitudinally ribbed and transversely ridged, forming flattened nodules at the points of intersection; spire sharp, apex purple; aperture elongately ovate, deep purple within; outer lip finely denticulated at the edge, contracted below; posterior sinus narrow and rather deep.

Length 6 lines, breadth  $2\frac{1}{2}$  lines.

*Hab.* Dredged in Lane Cove, Port Jackson, New S. Wales (*Brazier*).

This elegant species differs from *C. reticosa*, A. Ad. & Angas, in having the whorls angulate at the upper part, with the latticed sculpture less nodulous at the crossings; it also wants the band, the channel is more contracted and produced, and the nodose liræ are absent within the outer lip.

18. *CLATHURELLA TENUILIRATA*, n. sp. (Plate I. fig. 18.)

Shell fusiformly turreted, solid, opaque, pale brown; whorls 8, convex, longitudinally ribbed with about eight somewhat compressed prominent ribs, crossed with distant narrow erect ridges that become sharply angular at the intersection, the entire spaces between them being very closely and regularly ornamented with fine hair-like concentric striæ; spire sharp; aperture narrowly ovate; outer lip thin at the edge, variced behind, the interior with a tubercle next the posterior sinus, which is broad and shallow.

Length 4 lines, breadth  $1\frac{1}{4}$  line.

*Hab.* Goat Island, Port Jackson; dredged in 5 fathoms (*Brazier*).

19. *CLATHURELLA SCULPTILIS*, n. sp. (Plate I. fig. 19.)

Shell fusiformly turreted, moderately solid, pale brown; whorls 7, rounded, a little excavated next the sutures, longitudinally rather strongly costate, with about nine rounded ribs, between which are numerous fine erect longitudinal striæ, which become crescent-shaped on the flattened area below the sutures, and encircled with numerous concentric, somewhat irregular ridges, which are slightly nodulous at the intersections; aperture subpyriform; outer lip thin, sharp, variced externally, slightly sulcate within; columella straight; canal slightly produced and everted; posterior sinus rather deep.

Length 4 lines, breadth  $1\frac{1}{2}$  line.

*Hab.* Dredged near the "Sow and Pigs," Port Jackson (*Brazier*).

20. *CLATHURELLA BICOLOR*, n. sp. (Plate I. fig. 20.)

Shell somewhat acuminately turreted, rather solid, pale ash-colour, with the base of the last whorl chocolate-brown; whorls  $7\frac{1}{2}$ , rounded, somewhat angulate in the middle, longitudinally ribbed and concentrically narrowly ridged, slightly nodulous at the points of intersection; spire acuminate, with the apex sharp and of a brown colour; aperture small, ovate, stained above and below with brown interiorly; outer lip thin, denticulate within and strongly variced behind; posterior sinus broad and rather deep.

Length  $3\frac{1}{2}$  lines, breadth 1 line.

*Hab.* Dredged near the "Sow and Pigs," Port Jackson (*Brazier*).

21. *CLATHURELLA BRAZIERI*, n. sp. (Plate I. fig. 21.)

Shell elongately turreted, rather solid, pale brown, a little darker on the lower whorl and at the apex; whorls 7, angulated at the upper part, longitudinally plicate and transversely finely ridged; spire convexly acuminate; aperture elongately ovate; outer lip thin, simple within; columella arcuate; channel short, sharply recurved; posterior sinus wide, not very deep.

Length 3 lines, breadth  $\frac{3}{4}$  line.

*Hab.* Dredged near the "Sow and Pigs" (*Brazier*).

22. *CLATHURELLA ALBOCINCTA*, n. sp. (Plate I. fig. 22.)

Shell ovately fusiform, moderately solid, whitish, the last whorl stained with brown, with a broad opaque white band in the centre; whorls 5, rounded, longitudinally ribbed with numerous regular nodulous ribs, and latticed with concentric ridges; aperture ovate; outer lip thickened, dentate within; posterior sinus narrow.

Length  $2\frac{1}{2}$  lines, breadth 1 line.

*Hab.* Dredged near the "Sow and Pigs," Port Jackson (*Brazier*).

23. *CLATHURELLA BILINEATA*, n. sp. (Plate I. fig. 23.)

Shell ovately turreted, moderately solid, pale straw-colour or light brown, nearly white around the aperture and at the base, with a narrow brown band just below the suture, and a second between the periphery and the base of the last whorl; whorls 6, angulate at the upper part, coarsely longitudinally ribbed and transversely ridged, the interstices very finely decussately striated; aperture acuminately ovate; outer lip arcuate, contracted towards the base, and thickened behind; posterior sinus very shallow.

Length 2 lines, breadth  $\frac{3}{4}$  line.

*Hab.* Dredged near the "Sow and Pigs," Port Jackson (*Brazier*).

24. *FOSSARINA BRAZIERI*, n. sp. (Plate I. fig. 24.)

Shell depressedly turbinata, narrowly umbilicate, moderately solid, ashy grey, more or less blotched here and there with purplish brown; whorls  $3\frac{1}{2}$ , irregularly spirally ridged (one at the periphery, and one near the suture being more prominent than the others) and transversely striated; sutures strongly impressed; spire slightly elevated,

apex obtuse; aperture subcircular; outer lip simple; inner lip arcuate, thin; operculum multispiral.

Diam. maj.  $1\frac{3}{4}$ , min. 1, height 1 line.

*Hab.* Under stones, Shark Island, Port Jackson (*Brazier*).

25. *NERITINA (VITTA) PULCHERRIMA*, n. sp. (Plate I. fig. 25).

Shell small, ovate, smooth, shining, generally pale grey, more or less zoned with yellow, and with a white band near the upper part of the whorls, which is ornamented with patches of purplish-black waved lines, the whorl below the band being closely adorned with finer zigzag or undulating lines of the same colour; spire short, apex obtuse; whorls 3, rounded; aperture oblique, semilunar; outer lip thin; columella covered with a white, polished, spreading callus; margin slightly arcuate and crenate in the middle.

Length 2 lines, breadth 1 line.

*Hab.* Dredged near the "Sow and Pigs" reef, Port Jackson.

A very prettily painted little species of a more rounded form than *N. viridis*, Linn., and easily distinguished by its peculiar style of ornamentation.

26. *LIOTIA SPECIOSA*, n. sp. (Plate I. fig. 26.)

Shell rather solid, depressedly orbicular, pale brown, encircled by three prominent ribs, and longitudinally finely distant plicate, the interstices denticulate; whorls convex, excavated at the sutures; spire with the apex acute, exerted; umbilicus moderate, encircled by a rib similar to those on the body-whorl and decussated by concentric radiating striæ within; aperture circular; outer lip a little thickened; peritreme continuous.

Diam. 1 line, alt.  $\frac{1}{2}$  line.

*Hab.* Double Bay, Port Jackson. Under stones at a very low tide (*Brazier*).

27. *BUCCINULUS NIVEUS*, n. sp. (Plate I. fig. 27.)

Shell elongately ovate, rather solid, white, shining; spire acuminate, pointed at the apex; whorls  $7\frac{1}{2}$ , encircled by numerous unequal, irregular, impressed and finely punctured striæ, which become fewer towards the upper whorls; sutures impressed; outer lip thin, a little sinuous, arcuate; columella with a prominent bilobed fold near the lower part, and a single small one above; inner lip covered by a spreading callus.

Length 6 lines, breadth  $2\frac{1}{4}$  lines.

*Hab.* Dredged near "Sow and Pigs" reef, Port Jackson (*Brazier*).

A species of an ivory-white throughout, in form not unlike *B. affinis* (*Solidula affinis*, A. Ad., Proc. Zool. Soc. 1854, p. 61).

28. *BULIMUS (LIPARUS) BRAZIERI*, n. sp. (Plate I. fig. 28.)

Shell oblong-ovate, thin, straw-colour, frequently with reddish-brown irregular spots and flames, and sometimes nearly all brown, longitudinally rugosely plicately ribbed and transversely striated, the intersections strongly granular; whorls 5, rather convex, sutures im-

pressed; aperture ovate; outer lip thin; columella nearly straight, white, with a narrow dark brown band behind.

Length 8 lines, breadth 4 lines.

*Hab.* Sinclair's Range, King George's Sound.

This pretty species belongs to the same natural group as *B. angasiana*, Pf., *B. baconi*, Benson, and *B. mastersi*, Cox, all from the S.W. region of the Australian continent.

29. *CORBULA VENUSTA*, n. sp. (Plate I. fig. 29.)

Shell triangularly ovate, solid, rather ventricose, inequivalve, irregularly rugosely plicately concentrically striated, the striæ finer and more even towards the umboes, white, beneath a thin yellowish epidermis, with a short carnelion-coloured ray at the anterior side of the umbones; umbones tumid, approximating; umbonal ridge strong and angulate; anterior side rounded; posterior side narrowed and subtruncate.

Length 6 lines, alt. 4, lat. 3 lines.

*Hab.* Dredged on the "Sow and Pigs" bank, Port Jackson.

The only other species of the genus distinguished by the red umbonal ray is, as far as I am aware, *C. marmorata*, Hinds, which is a very much smaller shell, quite smooth, and comes from the west coast of Veragua.

30. *NEERA (LEPTOMYA) PURA*, n. sp. (Plate I. fig. 30.)

Shell thin, semitransparent, white, subovate, rather convex, equilateral, equivalve, ornamented with rather distant concentric raised lines; umbones tumid, rather prominent, approximating; anterior side rounded, posterior side obliquely truncate; ventral margin arcuate, slightly sinuate posteriorly; umbonal ridge distinctly angulate.

Length 6 lines, alt. 5, lat. 3 lines.

*Hab.* Lane Cove, Port Jackson, New S. Wales; in sandy mud (*Brazier*).

31. *MACTRA (SPISULA) FLUVIATILIS*, n. sp. (Plate I. fig. 31.)

Shell elongately ovate, rather compressedly convex, inequilateral, irregularly concentrically very finely ridged, covered with a rusty-brown epidermis; umbones small, submedian; anterior extremity rounded; posterior extremity somewhat produced and acuminately oval; ventral margin arcuate.

Length 6 lines, alt. 4, lat.  $2\frac{3}{4}$  lines.

*Hab.* Dredged in brackish water, in 2 fathoms, Hawkesbury River, New S. Wales (*Brazier*).

32. *CRASSATELLA FULVIDA*, n. sp. (Plate I. fig. 32.)

Shell subtriangularly ovate, inequilateral, rather compressed, yellowish, faintly streaked and mottled with pale orange, concentrically strongly ribbed, the interstices rather wider than the ribs; umbones pointed, rather small, approximate, tinged with orange-red; dorsal margin laterally rather concave; ventral margin strongly arcuate;